OWNER'S MANUAL
Model Number

700219-4 Deluxe subframe

BERCO
Deluxe Subframe
for
JOHN DEERE
SERIES 300, LX, GT, GX and G-100
Tractors with Hydraulic Lift

* **ASSEMBLY**
* **REPAIR PARTS**
* **OPERATION**
* **MAINTENANCE**

CAUTION:
READ & FOLLOW ALL SAFETY RULES & INSTRUCTIONS BEFORE OPERATING YOUR EQUIPMENT

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LIMITED WARRANTY

Conditions and Products Covered:

BERCOMAC guarantees any part of the product or accessory manufactured by BERCOMAC and found in the reasonable judgment of BERCOMAC to be defective in material and or workmanship will be repaired or replaced by an authorized dealer without charge up to our maximum labor rates and pre-established times. For replacement parts only standard ground freight services are covered. This warranty extends to the original retail purchaser only and is not transferable to any subsequent purchasers.

Warranty Period

(from date of the original retail purchase)

- Residential use: 1 year
- Semi-commercial, professional or rental use: 90 days

Exceptions Noted Below; the following items are guaranteed by the original manufacturer and have their own warranty, conditions and limited time:

- Tire Chains: 90 days
- Engines: Will vary as per the manufacturer
  Please refer to the engine manufacturer's warranty statement included with the unit. BERCOMAC is not authorized to handle warranty adjustments on engines.

Items and Conditions NOT Covered:

This warranty does not cover the following:

- Pick-up or delivery charges or in-home services fees.
- Any damage or deterioration of the unit, parts and or finish of these due to normal use, wear and tear, or exposure.
- Cost of regular use or maintenance service or parts, such as gas, oil, lubricants, tune-up parts, and adjustments.
- Any part or accessory which has been altered, modified, misused, neglected, accidentally damaged or not properly installed, maintained, stored or repaired not in accordance with the instructions in the owner's manual.
- Repair due to normal wear and or any wear items such as shear pins, bolts, belts, etc.
- Expedited freight fee services for replacement parts.
- Shear bolts and shear pins are to be considered as a preventive measure not as an assured protection, any damages resulting from the lack of shear bolts breakage are not covered.

NOTE: All warranty work must be performed by an authorized dealer using original (manufacturer) replacement parts.

Owner's Responsibilities:

BERCOMAC's defective equipment or part must be returned to an authorized dealer within the warranty period for repairs. In the event that defective merchandise must be returned to manufacturer for repairs, freight fees are prepaid and a written authorization from BERCOMAC must be obtained by dealer prior to the shipment. This warranty extends only to equipment operated under normal conditions. To validate a warranty claim, it is the user's responsibility to maintain and service the unit as specified in the owner's manual or to have the unit serviced at their dealer at their expense.

General Conditions:

The sole liability of BERCOMAC with respect to this warranty shall be strictly and exclusively repair and replacement as mentioned herein. BERCOMAC shall not have any liability for any other costs, loss or damage, including but not limited to, any incidental or consequential loss or damage.

In particular, without being limited to, BERCOMAC shall have no liability or responsibility for:

- Travel time, overtime, after hours time or other extraordinary repair charges or relating to repairs and or replacements outside of normal business hours.
- Rental of like or similar replacement equipment during the period of any, repair or replacement work.
- Any communicating or travel charges.
- Loss or damage to person or property other than that covered by the terms of this warranty.
- Any claims for lost revenue, lost profit or any similar costs as a result of damage or repair.
- Attorney's fees.

BERCOMAC's responsibility in respect to claims is limited to making the required repairs or replacement without charge up to our maximum labor rates and pre-established times and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any product or accessory.

This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

NOTE: Bercomac reserves the right to change or improve the design of any part or accessory without assuming any obligation to modify any product previously manufactured.

Instructions for Obtaining Warranty Services:

Contact dealer where equipment was purchased or any other BERCO service dealer to arrange service at their dealership. To locate a dealer convenient to you, access our website at **www.bercomac.com**. Don't forget to bring your proof of purchase (sales receipt) to the BERCOMAC dealer.

Bercomac Limitée
92, Fortin North, Adstock, Quebec, Canada, G0N 1S0

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INTRODUCTION

TO THE PURCHASER

This new accessory was carefully designed to give years of dependable service. This manual has been provided to assist in the safe operation and servicing of your attachment.

NOTE: All photographs and illustrations in the manual may not necessarily depict the actual models or attachment, but are intended for reference only and are based on the latest product information available at the time of publication.

Familiarize yourself fully with the safety recommendations and operating procedures before putting the machine to use. Carefully read, understand and follow these recommendations and insist that they be followed by those who will use this attachment.

THIS SAFETY ALERT SYMBOL IDENTIFIES AN IMPORTANT SAFETY MESSAGE IN THIS MANUAL THAT HELPS YOU AND OTHERS AVOID PERSONAL INJURY OR EVEN DEATH. DANGER, WARNING, AND CAUTION ARE SIGNAL WORDS USED TO IDENTIFY THE LEVEL OF HAZARD. HOWEVER, REGARDLESS OF THE HAZARD, BE EXTREMELY CAREFUL.

DANGER: **Signals an extreme hazard that will cause serious injury or death if recommended precautions are not followed.**

WARNING: **Signals a hazard that may cause serious injury or death if the recommended precautions are not followed.**

CAUTION: **Signals a hazard that may cause minor or moderate injury if the recommended precautions are not followed.**

Record your attachment serial number and purchase date in the section reserved below (there is no serial number on the subframe). Your dealer requires this information to give you prompt, efficient service when ordering replacement parts. Use only genuine parts when replacements are required.

If warranty repairs are required please present this registration booklet and original sales invoice to your selling dealer for warranty service.

This manual should be kept for future reference.
Please check if you have received all the parts for your kit with the list of the bag and the list of the box.

SERIAL NUMBER : _____
(IF APPLICABLE)

MODEL NUMBER: _____

PURCHASE DATE : _____

SAFETY PRECAUTIONS

Careful operation is your best insurance against an accident. Read this section carefully before operating the vehicle and accessory. This accessory is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury. All operators, no matter how experienced they may be, should read this and other manuals related to the vehicle and accessory before operating. It is the owner's legal obligation to instruct all operators in safe operation of the accessory.

GLOSSARY:

In this manual, right and left sides are determined by sitting on the seat of the vehicle facing forward.

In this manual, "accessories" means attachments (snowblower, rotary broom, blade etc.) that you install on the vehicle (lawn tractors, A.T.V. s etc).

TRAINING:

This symbol, "Safety Alert Symbol", is used throughout this manual and on the accessory's safety labels to warn of the possibility of serious injury. Please take special care in reading and understanding the safety precautions before operating the vehicle and accessory.

1. Read this owner's manual carefully. Be thoroughly familiar with the controls and proper use of the vehicle and accessory. Know how to stop the unit and disengage the controls quickly.

2. Never allow children to operate the vehicle nor the accessory. Never allow adults to operate the vehicle nor the accessory without proper instructions.

3. No one should operate the vehicle nor the accessory while intoxicated or while taking medication that impairs the senses or reactions.

4. Keep the area of operation clear of all people, particularly small children and pets.

PREPARATION:

1. Thoroughly inspect the area where the accessory is to be used and remove door mats, all foreign objects and the like.

2. For motorized accessories, disengage all clutches and shift into neutral before starting engine.

3. Do not operate the accessory without wearing adequate winter outer garments. Avoid loose fitting clothing that can get caught in moving parts. Wear footwear that will improve footing on slippery surfaces.

4. Handle fuel with care, it is highly flammable.

   a) Use approved fuel container.
   b) Never add fuel to a running engine or hot engine.
   c) Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
   d) Never fill containers inside a vehicle, or on a truck or a trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle, before filling.
   e) When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
   f) Keep the nozzle in contact with the rim of the fuel tank or container opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
   g) Replace fuel cap securely and wipe up spilled fuel.
   h) If fuel is spilled on clothing, change clothing immediately.

5. Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).

6. Let the vehicle and accessory adjust to outdoor temperatures before using.

7. Never use an accessory without proper guards, plates, or other safety protective devices in place

8. Always make sure to wear the appropriate safety equipment required (glasses, muffs, mask…) for each type of product. See operation section.

9. Always make sure of having safe traction on the vehicle by using the recommended accessories (chains, A.T.V. tracks, counterweights…). See operation section.

10. Always make sure the all components are correctly installed. (driveline securely attached and locked at both ends, belts properly installed…)

11. Always handle the winch cable with thick leather gloves.

12. **Never modify the accessory or any part without the written consent from the manufacturer.**

SAFETY PRECAUTIONS

OPERATION:

1. Do not put hands or feet near, under or inside rotating parts.
2. Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic. Do not carry passengers.
3. After striking a foreign object, stop the engine (motor), disconnect the wire from the spark plug(s) and keep wire away to prevent accidental starting. Thoroughly inspect the accessory for any damage and repair damage before restarting and using the accessory.
4. If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
5. Take all possible precautions when leaving the vehicle unattended. Disengage the power take-off, lower the attachment, place the transmission into neutral, set the parking brake, stop the engine and remove the contact key.
6. Do not run the engine indoors, except when starting the engine and for transporting in or out of the building. Do not operate or let motor run in a storage area without ventilation because gas contains carbon monoxide which is odorless, colorless and can cause death.
7. Never use the accessories across the face of slopes, go from top to bottom. Exercise extreme caution when using equipment on slopes. Do not attempt to clear a steep slope.
8. Never tolerate bystanders in the working zone. Never use an accessory in the direction of bystanders, it might throw gravel or debris that can hurt people or damage property.
9. Never operate the accessory at high transport speeds on slippery surfaces. Use care when backing up.
10. Do not carry passengers.
11. Disengage power to the accessory when it is transported or not in use.
12. Never operate the accessory without good visibility or light.
13. Keep the accessory away from heat sources or flames.
14. Never handle the winch cable or hook while in tension.

MAINTENANCE AND STORAGE

1. When cleaning, repairing or inspecting the vehicle and accessory, make certain that all moving parts have stopped. For gasoline engine, disconnect wire from the spark plug(s) and keep wire away to prevent accidental starting.
2. Check all the bolts and components at frequent intervals to make sure that they are properly tightened.
3. Never store a motorized accessory with fuel in the fuel tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine to cool before storing in any enclosure.
4. Always refer to the owner's manual when you store the accessory and vehicle for a prolonged or an unspecified length of time.
5. Maintain or replace safety and instruction labels, as necessary.

6 For winter accessories, (if applicable), let the engine run for a few minutes after clean snow in order to prevent the rotary parts from freezing.

7. Inspect the vehicle's and accessory's air filter (if applicable) every day. Clean it or replace it as necessary. Change the oil more often when working in dusty conditions. See the vehicle's and accessory's owner's manual.

THIS SYMBOL MEANS
DANGER !
BECOME ALERT !
YOUR SAFETY IS INVOLVED !

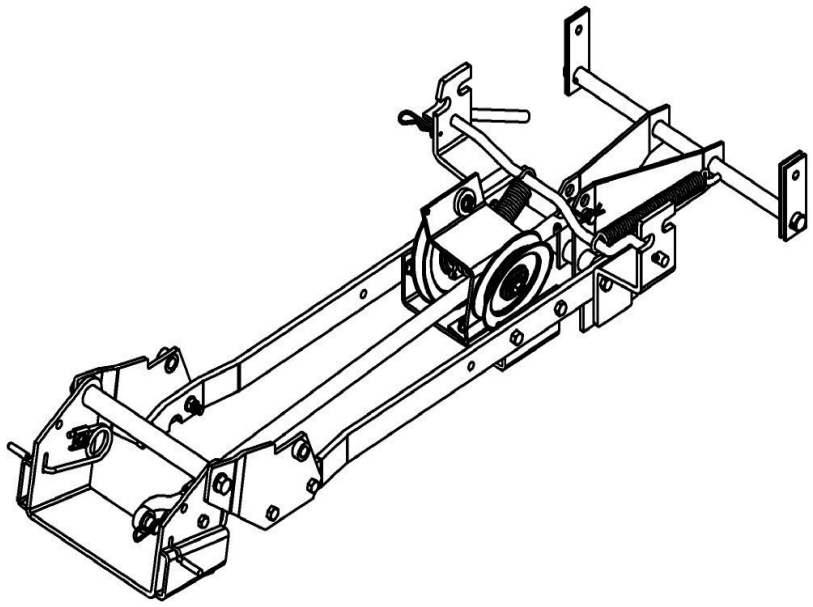
ASSEMBLY

IMPORTANT: TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE WHEN STATED: TIGHTEN FIRMLY.
This subframe may be used to install different attachments (see attachments page).

NOTE: The mower deck must be removed to install the subframe.

INSTALLING THE REFLECTORS

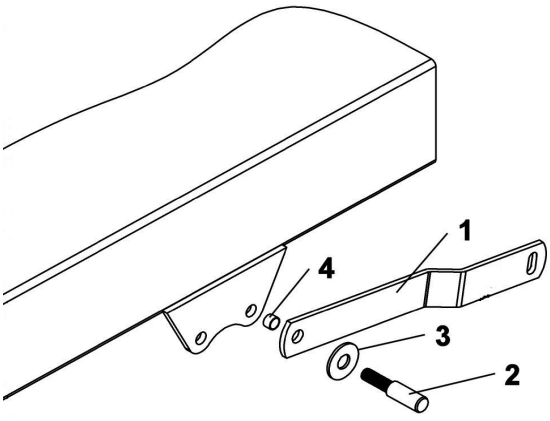
IMPORTANT: When operating the tractor with the front mounted attachment, install the two red-colored adhesive reflectors on the rear vertical surface of the tractor's fender.



Over all view

STEP 1
SUBFRAME PREPARATION FOR THE JOHN DEERE TRACTORS
MODELS: LX 255, 266, 277, 277AWS, 279, 280, 288, 289 and GT 225, 235 245 and G-100

Remove the bolt that holds the left hand side mower lift arm (item 1). Reinstall the lift arm by inserting (as shown) the mounting pin (item 2), original sleeve (item 4) and flat washer (item 3) from the tractor.
Secure with the original nut inside the tractor frame.
Do the same operation on the right side.
Tighten firmly.



Install the mounting pins

ASSEMBLY

Unhook the helper spring (item 6).

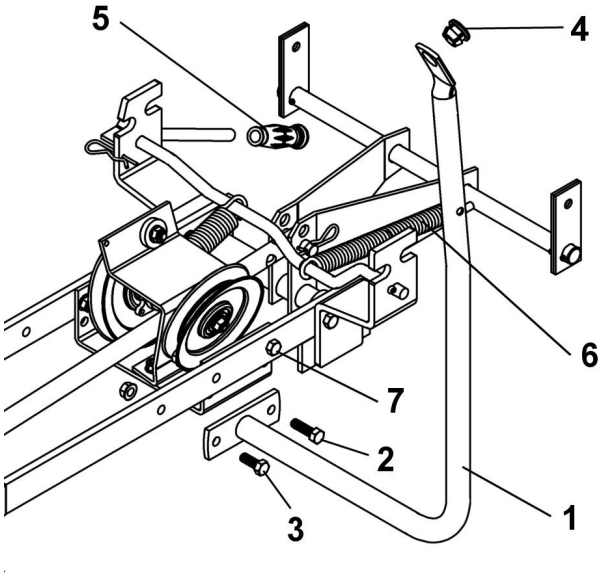
Install the handle support (item 1) on the left hand side with a 3/8 x 1 1/4" hex bolt (item 2) and flange nut already in place, a 3/8 x 1" hex bolt (item 3) and flange nut.
Tighten firmly.

Insert the plastic grommet (item 4) in the handle support.

Install the handgrip (item 5) as shown.

NOTE: For the G-100 model

Unscrew the bolts (items 2 & 7) from each side and raise the pulley support. Secure it in the second set of holes (1.00'' higher) with the same bolts.



Install handle support

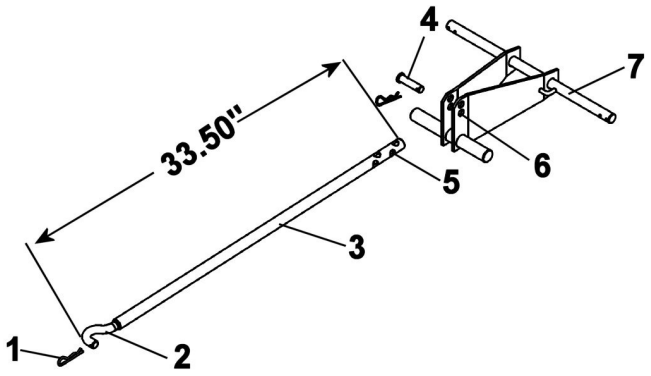
Remove the hair pin (item 1) and unhook the adjusting rod (item 2) from the pivot support.

NOTE: In order to facilitate the subframe installation, rotate the pivot support towards the front.

Make sure that the other end of the push tube (item 3) is secured in the second hole (item 5) with a pin (item 4) and in the bottom hole (item 6) of the lift lever (item 7).

Adjust temporarily the overall length of the push tube to 33.50" by screwing or unscrewing the adjusting rod (item 2).

FINAL ADJUSTMENT:
After installing the attachment (Snowblower, Broom, or Blade) make sure the lift mechanism is lowered to its limit. Readjust the adjusting rod (item 2) by screwing or unscrewing until the rod is even with the hole on the pivot support.



Adjust the length of push tube

ASSEMBLY

SUBFRAME INSTALLATION:

WARNING

TO PREVENT INJURIES:
Stop the motor.
Apply parking brake.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Slide the subframe under the tractor between the front and back wheels on the left side.

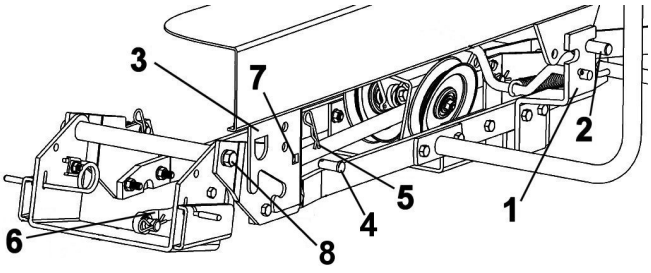
Lift the back part of the subframe and hook the supports (item 1) by the back slot (as shown) on the mounting pins (item 2).

Lift the front part of the subframe between the tractor supports (item 3).
Secure in place n the square holes or round holes (item 7) depending on the model of tractor with two 0.50 x 1.25" pins (item 4) and two 3 mm hair pins (item 5).

IMPORTANT:
Make sure the bolt (item 8) is 7 1/2'' to 8 1/4'' from the ground.

NOTE: If the holes are not aligned, loosen the supports, install the pins and retighten the support bolts tightly.

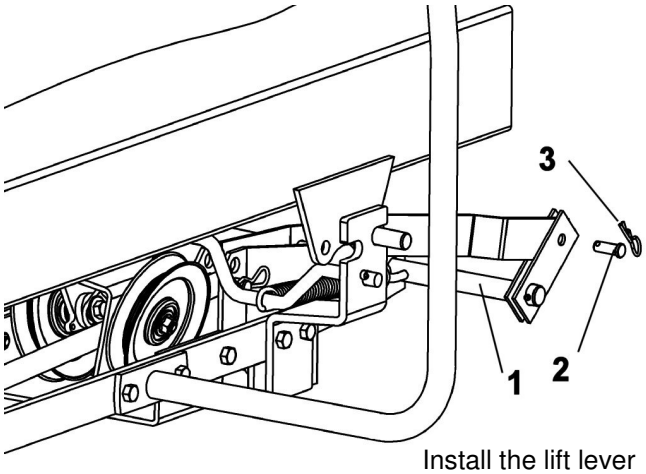
If the tractor supports (item 3) are too narrow, loosen the heat shield bolts.



Install the subframe

Adjust the mower's cutting height knob to "0". Push the tractor's lift arm completely towards the front in order to lower the mower's suspension arms.

Secure the lift lever (item 1) as shown to the mower lift arm with a 0.38 x 1.00 pin (item 2) and a 2 mm hair pin (item 3).
Do the same operation on the other side.



Install the lift lever

ASSEMBLY

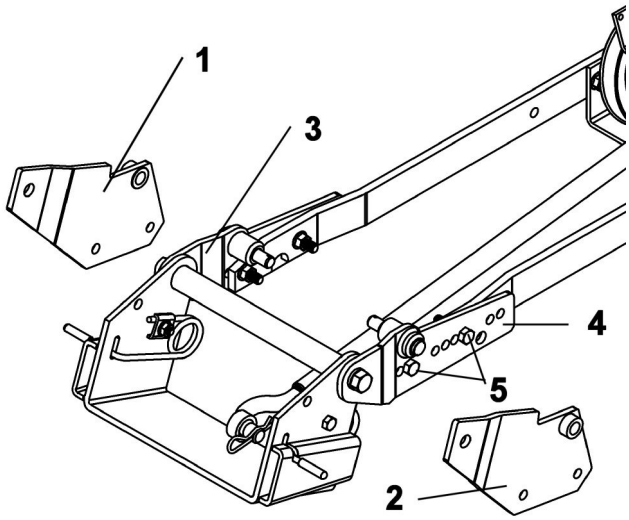
SUBFRAME PREPARATION FOR THE JOHN DEERE TRACTORS
MODELS: LX 172, 173, 176, 178, 188, and GT 242, 262, 275

IMPORTANT: TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE (SEE TABLE OF CONTENTS) WHEN STATED: TIGHTEN FIRMLY. REFER TO PARTS BREAKDOWN SECTION FOR PARTS IDENTIFICATION.

NOTE: The mower deck must be removed to install the subframe.

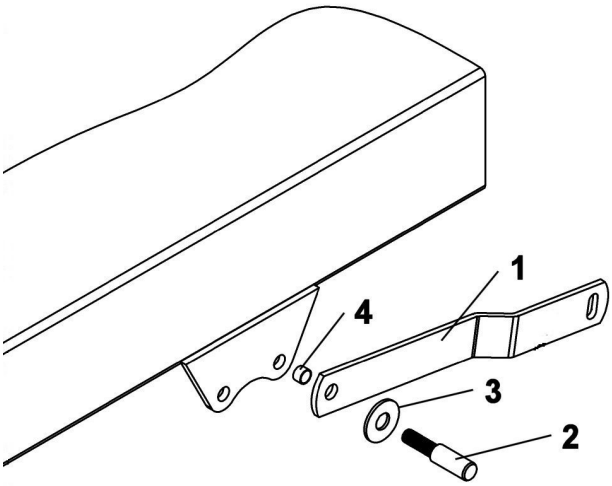
Replace the front supports (items 1 & 2) by the other supports (items 3 & 4) that are in the box.
Reinstall in the same fashion as the supports you removed, the fold towards the outside.

Insert the bolts (item 5) in the holes as shown.
Tighten the bolts firmly.



Replace the front supports

Remove the bolt that holds the left hand side mower lift arm (item 1). Reinstall the lift arm by inserting (as shown) the mounting pin (item 2), original sleeve (item 4) and flat washer (item 3) from the tractor.
Secure with the original nut inside the tractor frame.
Do the same operation on the right side.
Tighten firmly.



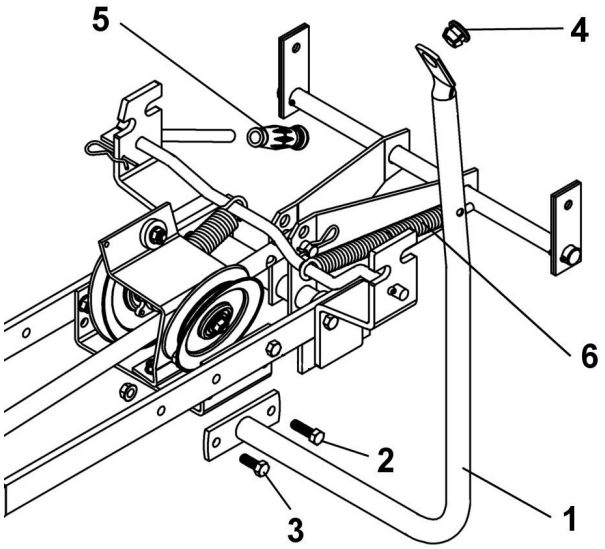
Install mounting pins

ASSEMBLY

Remove the helper spring (item 6).

Install the handle support (item 1) on the left hand side with a 3/8 x 1 1/4" hex bolt (item 2) and flange nut already in place, a 3/8 x 1" hex bolt (item 3) and flange nut.
Tighten firmly.
Insert the plastic grommet (item 4) in the handle support.

Install the handgrip (item 5) as shown.



Install handle support

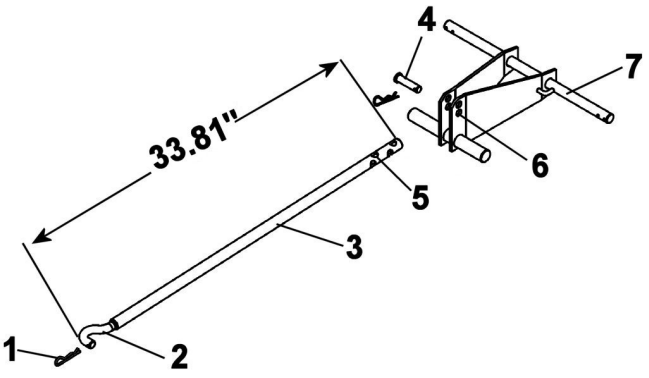
Remove the hair pin (item 1) and unhook the adjusting rod (item 2) from the pivot support.

NOTE: In order to facilitate the subframe installation, rotate the pivot support towards the front.

Make sure that the other end of the push tube (item 3) is secured in the third hole (item 5) with a pin (item 4) and in the bottom hole (item 6) of the lift lever (item 7).

Adjust temporarily the overall length of the push tube to 33.81" by screwing or unscrewing the adjusting rod (item 2).

FINAL ADJUSTMENT:
After installing the attachment (Snowblower, Broom or Blade) make sure the lift mechanism is lowered to its limit. Readjust the adjusting rod (item 2) by screwing or unscrewing until the rod is even with the hole on the pivot support.



Adjust push tube

ASSEMBLY

SUBFRAME INSTALLATION:

WARNING

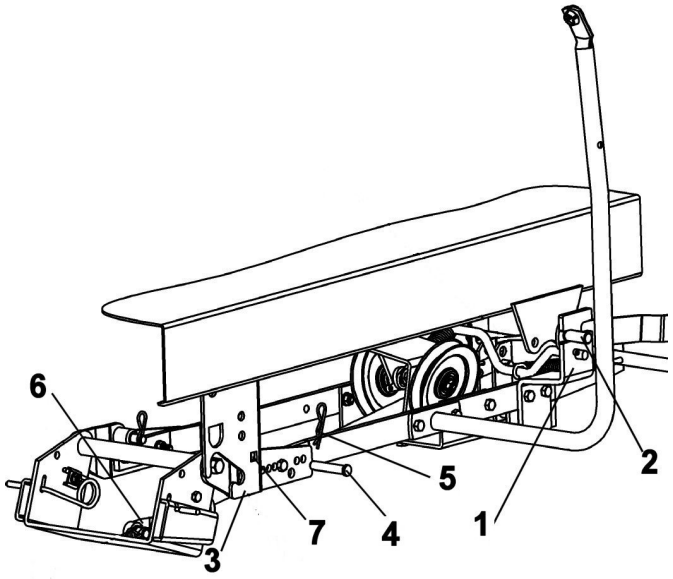
TO PREVENT INJURIES:
Stop the motor.
Apply parking brake.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Slide the subframe under the tractor between the front and back wheels on the left side.

Lift the back part of the subframe and hook the supports (item 1) by the front slot (as shown) on the mounting pins (item 2).

Lift the front part of the subframe between the tractor supports (item 3).
Secure in place in the square holes (item 7) with two 0.50 x 2.52" pins (item 4) and two 3 mm hair pins (item 5).

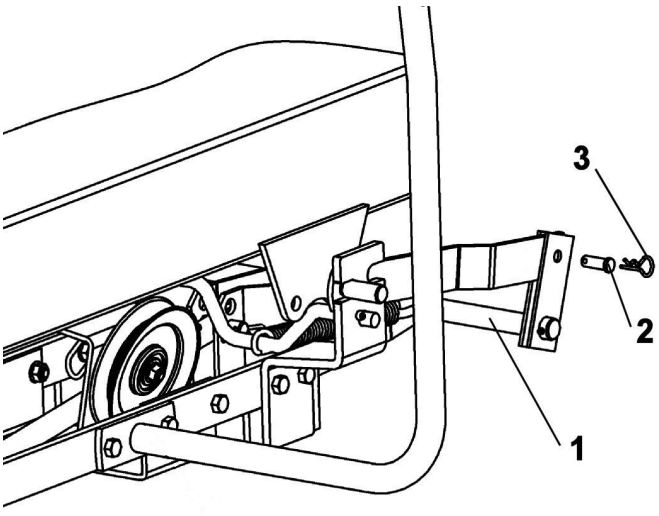
NOTE: If the holes are not aligned, loosen the supports, install the pins and retighten the support bolts tightly.
If the tractor supports (item 3) are too narrow, loosen the heat shield bolts.



Install subframe

Adjust the mower's cutting height knob to "0". Push the tractor's lift arm completely towards the front in order to lower the mower's suspension arms.

Secure the lift lever (item 1) as shown to the mower lift arm with a 0.38 x 1.00 pin (item 2) and a 2 mm hair pin (item 3).
Do the same operation on the other side.



Install lift lever

ASSEMBLY

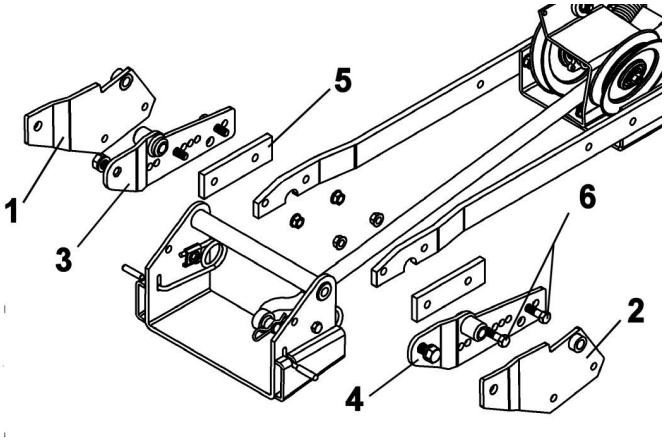
SUBFRAME PREPARATION FOR THE JOHN DEERE TRACTORS
MODELS: GT 325, 335, 345, 355
GX 325, 335, 345, 355

IMPORTANT: TORQUE ALL BOLTS ACCORDING TO TORQUE SPECIFICATION TABLE (SEE TABLE OF CONTENTS) WHEN STATED: TIGHTEN FIRMLY. REFER TO PARTS BREAKDOWN SECTION FOR PARTS IDENTIFICATION.

NOTE: The mower deck must be removed to install the subframe.

Replace the front supports (items 1 & 2) by the other supports (items 3 & 4) that are in the box. Reinstall in the same fashion as the supports you removed, but the fold towards the inside and insert a shim (item 5) between the supports and the subframe flat bars.
Insert the bolts (item 6) in the holes as shown.

Tighten the bolts firmly.

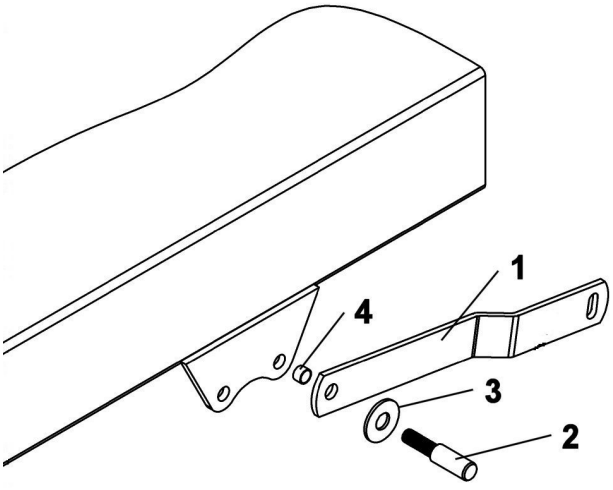


Replace front supports

Remove the bolt that holds the left hand side mower lift arm (item 1). Reinstall the lift arm by inserting as shown the mounting pin (item 2), original sleeve (item 4) and flat washer (item 3) from the tractor.

Secure with the original nut inside the tractor frame.

Do the same operation on the right side.
Tighten firmly.



Install mounting pins

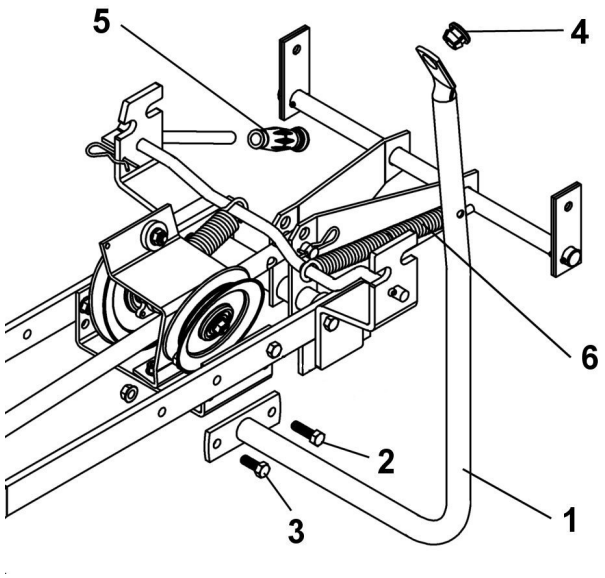
ASSEMBLY

Unhook the helper spring (item 6).

Install the handle support (item 1) on the left hand side with a 3/8 x 1 1/4" hex bolt (item 2) and flange nut already in place, a 3/8 x 1" hex bolt (item 3) and flange nut.
Tighten firmly.

Insert the plastic grommet (item 4) in the handle support.

Install the handgrip (item 5) as shown.



Install handle support

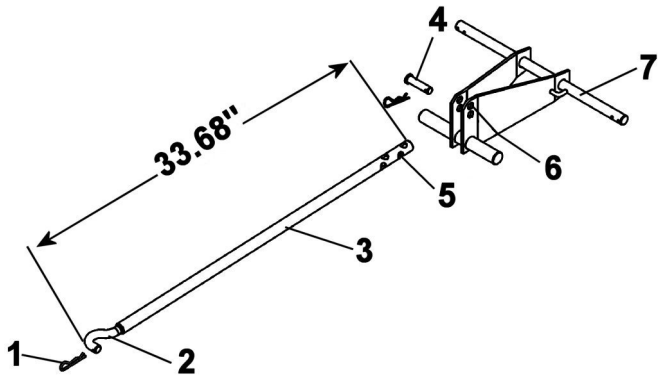
Remove the hair pin (item 1) and unhook the adjusting rod (2) from the pivot support.

NOTE: In order to facilitate the subframe installation, rotate the pivot support towards the front.

Make sure that the other end of the push tube (item 3) is secured in the second hole (item 5) with a pin (item 4) and in the top hole (item 6) of the lift lever (item 7).

Adjust temporarily the overall length of the push tube to 33.68" by screwing or unscrewing the adjusting rod (item 2).

FINAL ADJUSTMENT:
After installing the attachment (Snowblower, Broom or Blade) make sure the lift mechanism is lowered to its limit. Readjust the adjusting rod (item 2) by screwing or unscrewing until the rod is even with the hole on the pivot support.



Adjust push tube

ASSEMBLY

SUBFRAME INSTALLATION:

WARNING

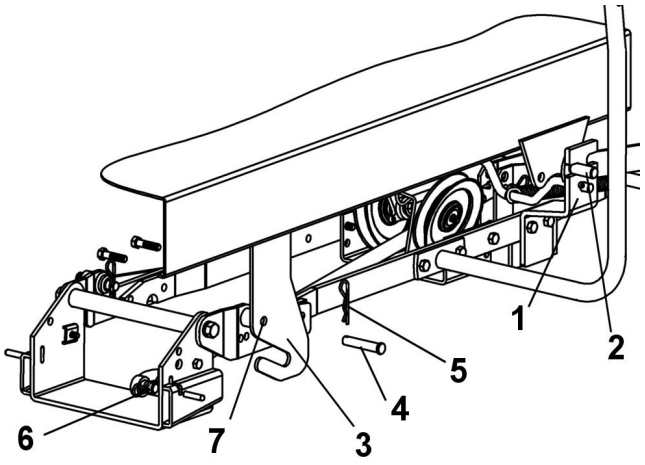
TO PREVENT INJURIES:
Stop the motor.
Apply parking brake.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Slide the subframe under the tractor between the front and back wheels on the left side.

Lift the back part of the subframe and hook the supports (item 1), by the front slot (as shown) on the mounting pins (item 2).

Lift the front part of the subframe between the tractor supports (item 3).
Secure in place in the holes (item 7) with two 0.50 x 2.52" pins (item 4) and two 3 mm hair pins (item 5).

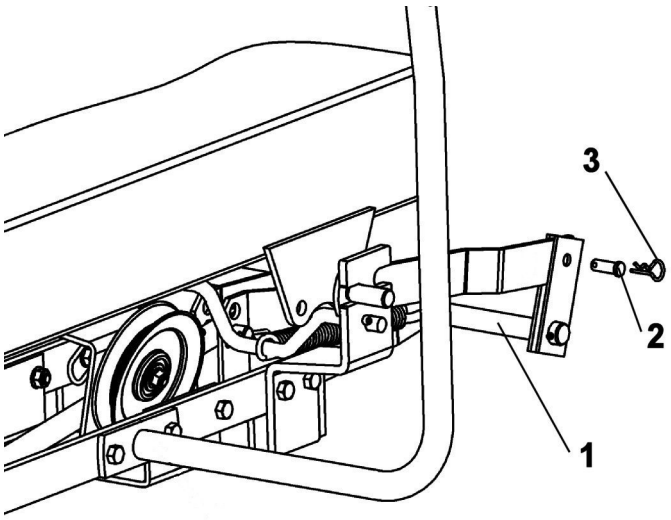
NOTE: If the holes are not aligned, loosen the supports, install the pins and retighten the support bolts tightly.
If the tractor supports (item 3) are too narrow, loosen the heat shield bolts.



Install subframe

Adjust the mower's cutting height knob to "0". Push the tractor's lift arm or the hydraulic lever completely towards the front in order to lower the mower's suspension arms.

Secure the lift lever (item 1) as shown to the mower lift arm with a 0.38 x 1.00 pin (item 2) and a 2 mm hair pin (item 3).
Do the same operation on the other side.



Install lift lever

ASSEMBLY

STEP 2
SNOWBLOWER INSTALLATION:
Refer to snowblower owner's manual, parts breakdown section for parts identification.

WARNING

FOR YOUR SECURITY:
Read the snowblower owner's manual for safety precautions and rules.
Follow the assembly and operation instructions.

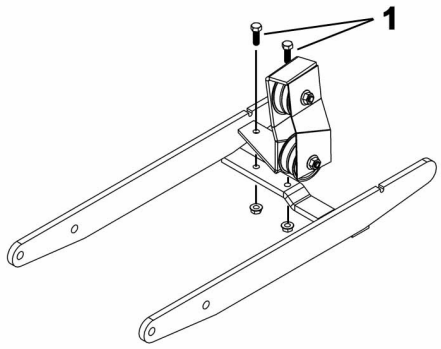
WARNING

TO PREVENT INJURIES:
Stop the motor.
Apply parking brakes.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Install the double pulley support as shown on the male hitch by using two 5/16 x 1" bolts (item 1) and flange nuts. Tighten the bolts firmly.

CAUTION

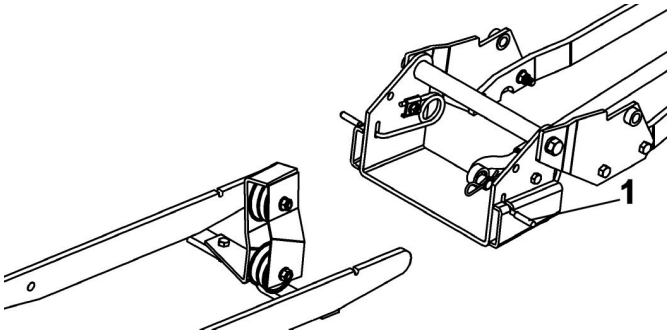
TO PREVENT INJURIES:
Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.



Install pulley support

Install the snowblower to the subframe as shown.

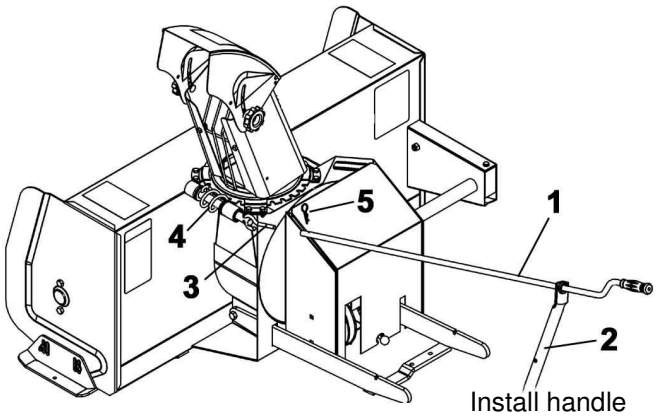
Make sure the snowblower is pushed in until locked into place by the springs (item 1).



Install the snowblower

Insert the handle (item 1) into the support (item 2) as shown.

Install the hook (item 3) on the rotation worm (item 4). Insert the hook in the handle (item 1) and secure with a 2.5 mm hair pin (item 5).



Install handle

ASSEMBLY

CAUTION

Never use the snowblower without the belt guard.

Remove the belt guard from the back of snowblower.

Move the tension arm (item 5) towards the back to facilitate installation.

Install the belt on the snowblower by inserting it between the two flat pulleys (item 1) and around the snowblower pulley (item 2).

NOTE: Do not hook the helper spring (item 4) to the lift lever (item 9) right now. The belt must be adjusted before installing the spring.

Apply tension on the belt by moving the tension arm (item 5) towards the front
Check the tension on the belt and adjust if necessary.

See maintenance section for adjustment instructions.

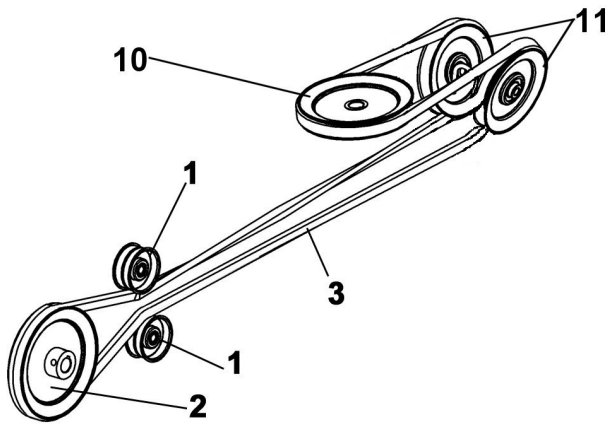
NOTE:
Install the belt under the tractor as shown and make sure the bottom strand (item 3) between the snowblower pulley and the left hand side pulley is not twisted. Make sure the belt between the motor pulley (item 10) and the pulleys (item 11) is parallel with the ground.

Raise the snowblower in order to install the helper spring.
Move the tension arm (item 5) towards the back.

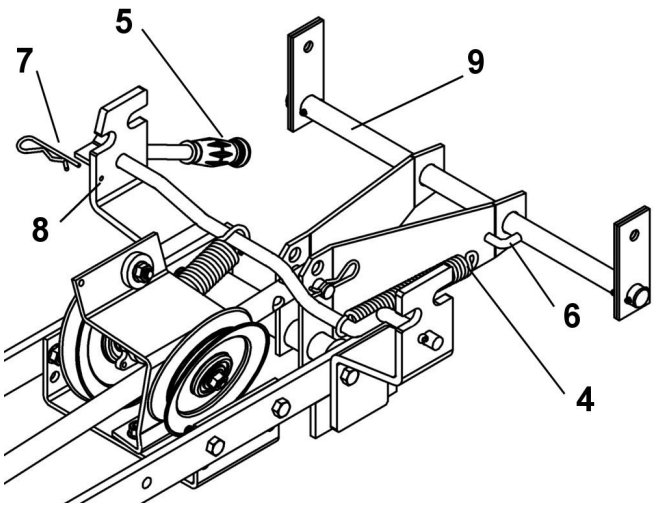
Hook the helper spring (item 4) in the eyelet (item 6) that is welded to the lift lever (item 9).

Apply tension on the belt by moving the tension arm towards the front.

Secure in the hole (item 8) with a 3 mm hair pin (item 7).



Install belt



Install helper spring

CAUTION

TO PREVENT INJURIES:
Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.

ASSEMBLY

VERIFY BELT ROUTING:

-Lower the snowblower to the ground and let it run for a few seconds under supervision.
-Disengage the snowblower and stop the engine.
-Check the belt to make sure it is well inserted in the pulleys and that it has not flipped on its side in the pulleys.
-Reinstall the belt guard.

WARNING

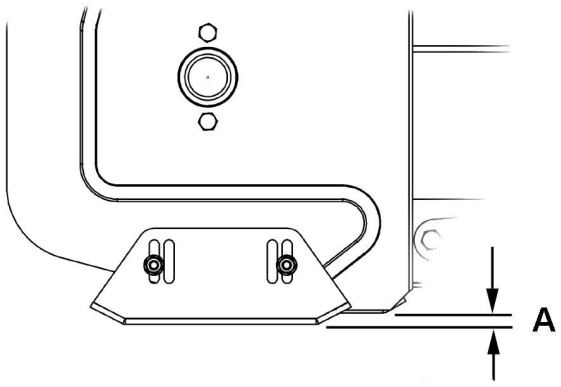
TO PREVENT INJURIES:
It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.

For more information, do not hesitate to contact the technical support.

VERIFY SKID SHOE ADJUSTMENT:

LEVEL PAVED SURFACE: Adjust skid shoes to allow 3/16 to 1/4" clearance (A) between cutting edge and surface.

UNEVEN OR GRAVEL SURFACE: Adjust skid shoes to allow 1/2 to 5/8" clearance (A) between cutting edge and surface.



Adjust skid shoes

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires:	20-25 psi
Back tires:	8-10 psi

Tire pressure must be even on both sides of the tractor.

ASSEMBLY

ROTARY BROOM INSTALLATION:

Refer to Rotary Broom owner's manual, parts breakdown section for parts identification.

WARNING

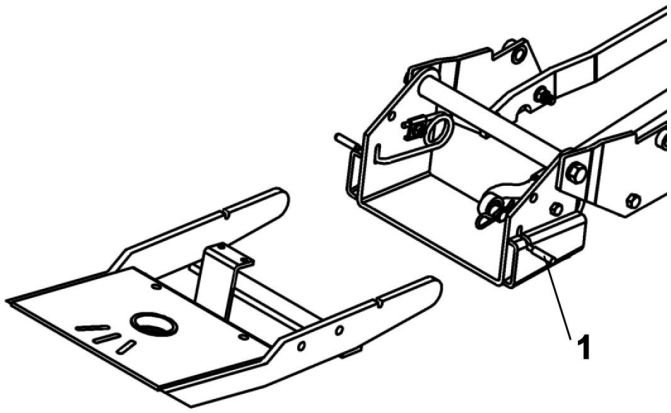
FOR YOUR SECURITY:
Read the Rotary Broom owner's manual for safety precautions and rules.
Follow the assembly and operation instructions.

WARNING

TO PREVENT INJURIES:
Stop the motor.
Apply parking brakes.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Install the rotary broom to the subframe as shown.

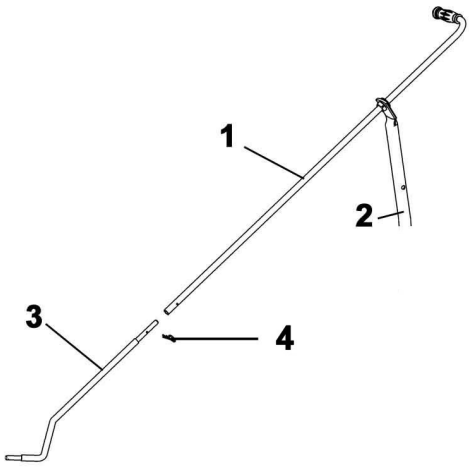
Make sure the rotary broom is pushed in until locked into place by the springs (item 1).



Install the rotary broom

Insert the handle (item 1) into the support (item 2) as shown.

Install the handle (item 1) on the control rod (item 3) as shown and secure with a 2.5 mm hair pin.



Install the handle

ASSEMBLY

CAUTION

Never use the Rotary Broom without the belt guard.

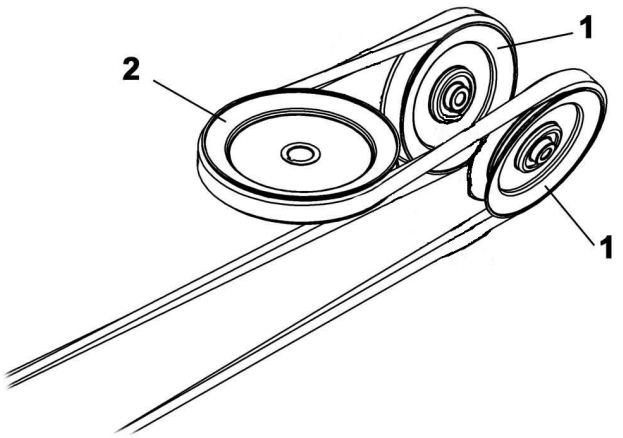
Install the belt as shown.
NOTE: Do not hook the helper spring (item 4) to the lift lever (item 9) right now. The belt must be adjusted before installing the spring.

Apply tension on the belt by moving the tension arm (item 5) towards the front.

Check the tension on the belt and adjust if necessary.

See maintenance section for adjustment instructions.

NOTE: Make sure the belt between the motor pulley (item 1) and the pulleys (item 2) is parallel with the ground.



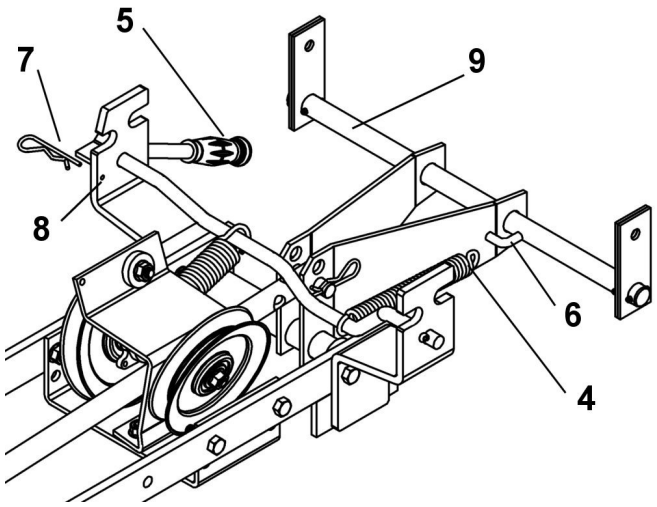
Install the belt

Raise the rotary broom in order to install the helper spring.

Move the tension arm (item 5) towards the back.

Hook the helper spring (item 4) in the eyelet (item 6) that is welded to the lift lever (item 9).

Apply tension by moving the tension arm towards the front and secure in the hole (item 8) with a 3 mm hair pin (item 7).



Install the spring

CAUTION

TO PREVENT INJURIES:
Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.

ASSEMBLY

VERIFY BELT ROUTING:

-Lower the rotary broom to the ground and let it run for a few seconds under supervision.
-Disengage the rotary broom and stop the engine.
-Check the belt to make sure it is well inserted in the pulleys and that it has not flipped on its side on the pulleys.
-Reinstall the belt guard.

WARNING

TO PREVENT INJURIES:
It is the person who installs the drive mechanism responsibility to make sure that when the clutch is disengaged that all moving parts stop.

For more information, do not hesitate to contact the technical support.

VERIFY TIRE PRESSURE:

Check and adjust tractor tire pressure as follows:

Front tires:	20-25 psi
Back tires:	8-10 psi

Tire pressure must be even on both sides of the tractor.

ASSEMBLY

UTILITY BLADE INSTALLATION:

Refer to Utility Blade owner's manual, parts breakdown section for parts identification.

WARNING

FOR YOUR SECURITY:
Read the Utility Blade owner's manual for safety precautions and rules.
Follow the assembly and operation instructions.

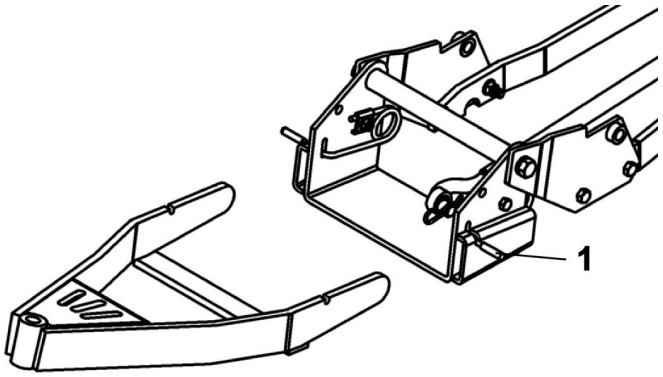
WARNING

TO PREVENT INJURIES:
Stop the motor.
Apply parking brakes.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

Install the utility blade to the subframe as shown.

Make sure the blade is pushed in until locked into place by the springs (item 1).

Note: If the utility blade does not scrape enough, remove the helper spring.



Install utility blade

Insert the handle (item 1) into the support (item 2) as shown.

Install the handle (item 1) on the control rod (item 3) as shown and secure with a 2.5 mm hair pin.

CAUTION

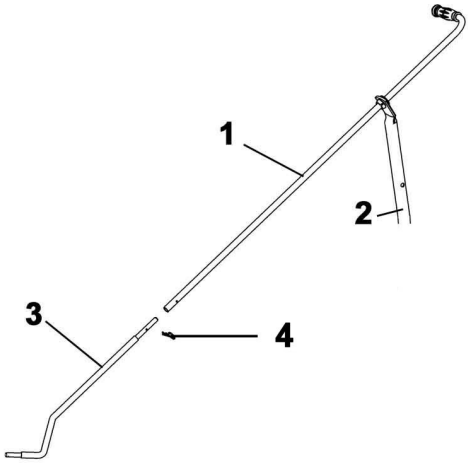
TO PREVENT INJURIES:
Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.

VERIFY TIRE PRESSURE:

Attachments should raise 3" to 4" above the ground (no more, no less) if not, check and adjust tractor tire pressure as follows:

Front tires: 20-25 psi
Back tires: 8-10 psi

Tire pressure must be even on both sides of the tractor.



Install handle

MAINTENANCE & DISMOUNTING

WARNING

TO PREVENT INJURIES:
Stop the motor.
Apply parking brakes.
Remove the ignition key.
Disconnect the wire from the spark plug(s) and keep away from spark plug(s) to prevent accidental starting.

MAINTENANCE

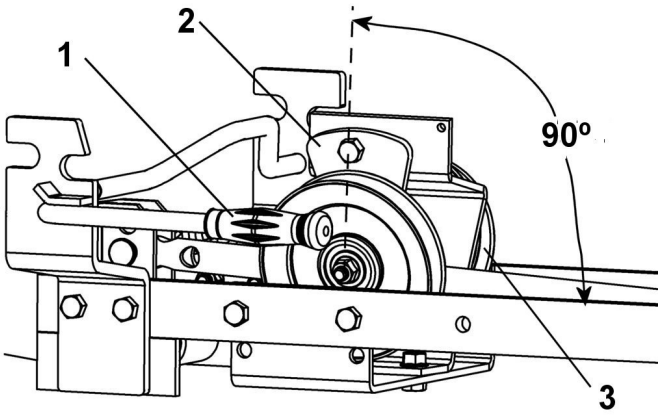
a) Check mounting bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.

b) Apply oil at all pivot points.

BELT ADJUSTMENT

When the attachment is on the ground, the tension arm should be vertical or at approximately 90° with the subframe's flat bars.

If it is not vertical, release the tension on the belt by moving the arm (item 1) towards the back. Adjust the tension on the belt by moving the left hand side adjustable pulley (item 3). To adjust, loosen the bolt located in the middle of the pulley and slide the pulley in the slot. Tighten the bolt. Apply tension on the belt by moving the tension arm towards the front. Verify the adjustment. Make sure the tension arm (item 2) is approximately at 90° with the subframe's flat bars and blocked in the hole with a 3 mm hair pin.



SUBFRAME DISMOUNTING

See Attachment Owner's manual (Snowblower, Rotary Broom, Utility Blade) for attachment dismounting instructions.

a) Remove the rear counterweight.

b) Release tension on the belt by moving the tension arm towards the back.

CAUTION

TO PREVENT INJURIES:
Always raise the attachment to reduce the tension on the spring before applying or releasing tension on the helper spring. Firmly hold the handle when you release the tension because the arm will kick back due to the tension on the spring.

c) Unhook the spring
d) Remove the two pins that hold the back of the subframe.
e) Remove the two pins that hold the front of the subframe.
f) Unhook and lower carefully the subframe.
g) Carefully pull out the subframe by middle of the tractor from the left side between the front and rear wheels.

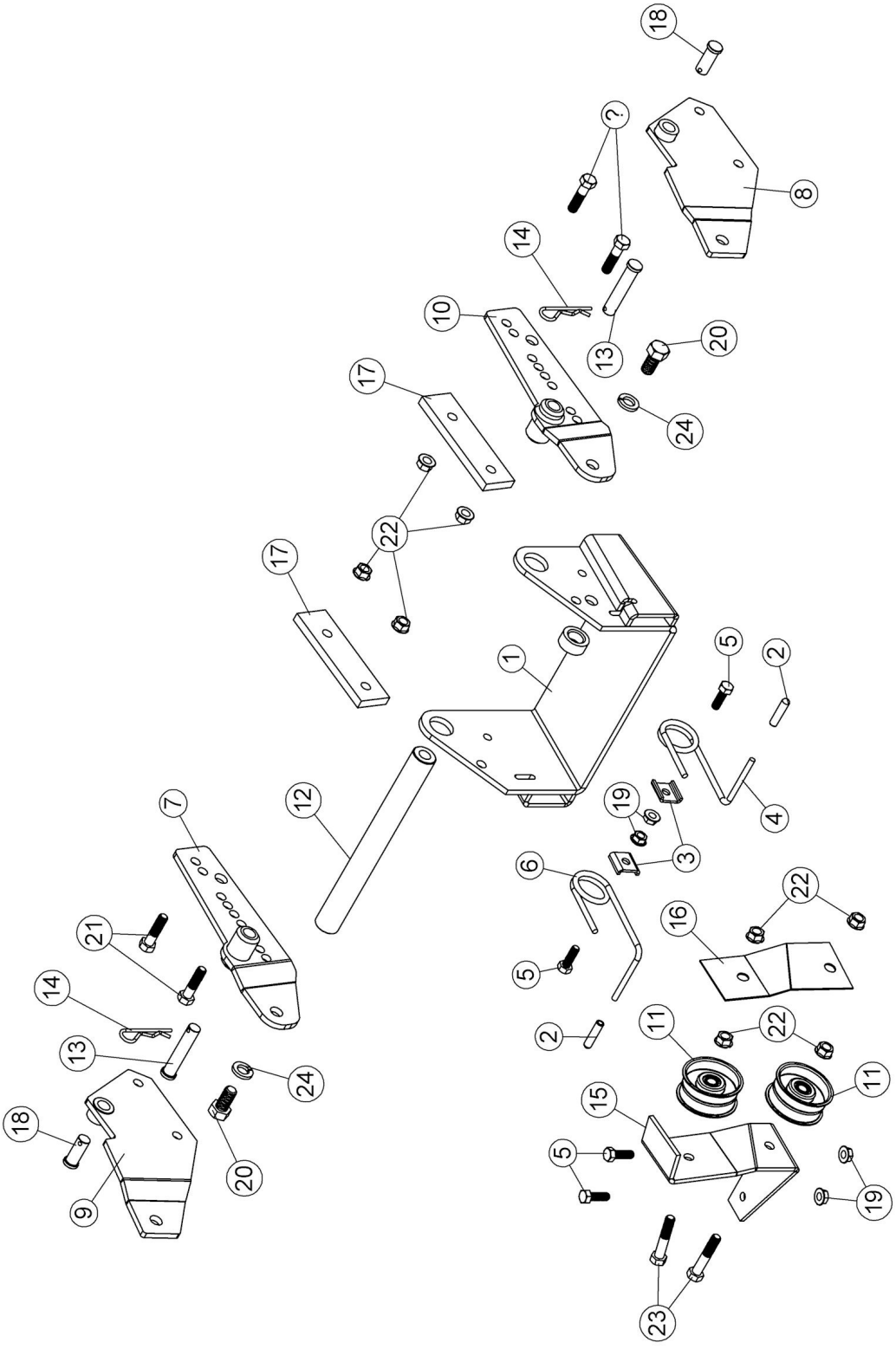
END OF SEASON STORAGE

a) Clean and repaint all parts from which the paint has worn.

b) Apply oil at all pivot points.

c) Inspect and replace all defective parts before next season.

PARTS BREAKDOWN
PUSH FRAME

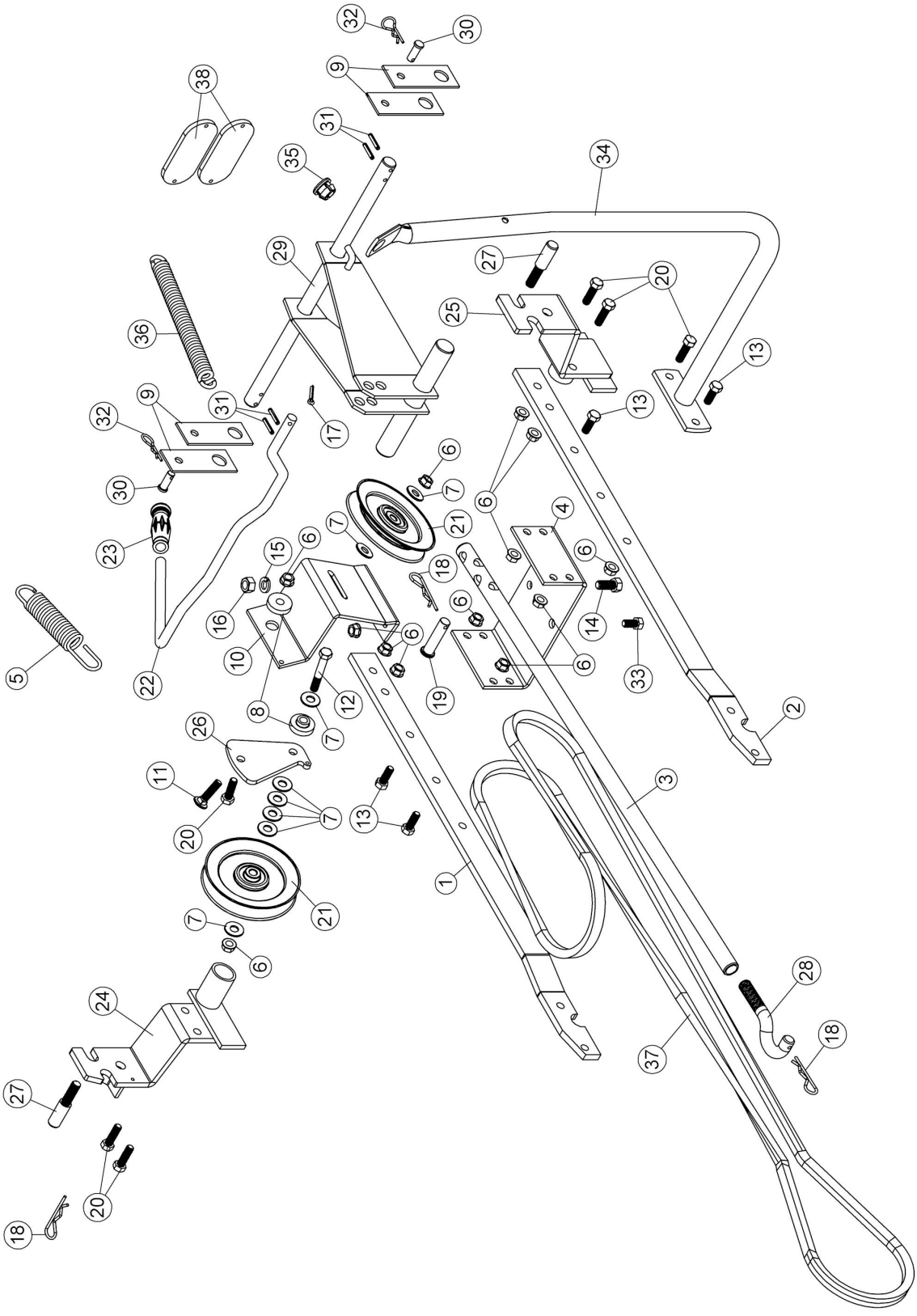


PARTS LIST
PUSH FRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Pivot support	Support de pivot	1	102655
2	Handgrip	Poignée	2	102248
3	Spring bracket	Fixation du ressort	2	102210
4	Left spring lock	Ressort de barrure gauche	1	102208
5	Hex. bolt 5/16" n.c. x 1"	Boulon hex. 5/16" n.c. x 1"	4	O/L
6	Right spring lock	Ressort de barrure droit	1	102209
7	Right front support	Support avant droit	1	103526
8	Left front support	Support avant gauche	1	103078
9	Right front support	Support avant droit	1	103079
10	Left front support	Support avant gauche	1	103525
11	Flat pulley	Poulie plate	2	102057
12	Pin	Goupille	1	102258
13	Pin	Goupille	2	102189
14	Hair pin 3mm	Goupille à ressort 3mm	2	102617
15	Double pulley support	Support de poulie double	1	103284
16	Idler guard	Garde-poulie	1	103285
17	Shim	Cale	2	102573
18	Pin	Goupille	2	103070
19	Flange nut 5/16" n.c.	Écrou à bride 5/16" n.c.	4	O/L
20	Hex. bolt 1/2" n.c. x 1"	Boulon hex. 1/2" n.c. x 1"	2	O/L
21	Hex. bolt 3/8" n.c. x 1 1/2"	Boulon hex. 3/8" n.c. x 1 1/2"	4	O/L
22	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	8	O/L
23	Hex. bolt 3/8" n.c. x 2"	Boulon hex. 3/8" n.c. x 2"	2	O/L
24	Lock washer 1/2"	Rondelle de blocage 1/2"	2	O/L

O/L = Obtain Locally

PARTS BREAKDOWN
SUBFRAME



PARTS LIST
SUBFRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
1	Right subframe flat bar	Fer plat droit du sous-châssis	1	102263
2	Left subframe flat bar	Fer plat gauche du sous-châssis	1	102262
3	Push tube	Tube de poussée	1	103076
4	Support plate	Plaque de support	1	103646
5	Spring 1 1/8"	Ressort 1 1/8"	1	102004
6	Flange nut 3/8" n.c.	Écrou à bride 3/8" n.c.	13	O/L
7	Flat washer 7/16" hole	Rondelle plate 7/16" trou	8	O/L
8	Flange washer	Rondelle à bride	2	102081
9	Link	Lien	4	103072
10	Pulley support	Support de poulie	1	102082
11	Carriage bolt 3/8" n.c. x 1-1/2"	Boulon à carrosserie 3/8" n.c. x 1 1/2"	1	O/L
12	Hex. bolt 3/8" n.c. x 2 1/2"	Boulon hex 3/8" n.c. x 2 1/2"	1	O/L
13	Hex. bolt 3/8" n.c. x 1"	Boulon hex. 3/8" n.c. x 1"	4	O/L
14	Hex. bolt 7/16" n.c. x 1"	Boulon hex. 7/16" n.c. x 1"	1	O/L
15	Lock washer 7/16"	Rondelle de blocage 7/16"	1	O/L
16	Hex. nut 7/16" n.c.	Écrou hex. 7/16" n.c.	1	O/L
17	Cotter pin 5/32" x 1"	Goupille fendue 5/32" x 1"	1	O/L
18	Hair pin 3mm	Goupille à ressort 3mm	3	102617
19	Pin	Goupille	1	102079

O/L = Obtain Locally

PARTS LIST
SUBFRAME

Ref. Réf.	English description	Description française	Qty. Qté.	Part # Pièce #
20	Hex. bolt 3/8" n.c. x 1 1/4"	Boulon hex. 3/8" n.c. x 1 1/4"	6	O/L
21	"V" Pulley	Poulie en "V"	2	102086
22	Idler arm	Bras de tension	1	103074
23	Handgrip	Poignée	1	102062
24	Right rear support	Support arrière droit	1	103081
25	Left rear support	Support arrière gauche	1	103082
26	Idler arm	Bras de poulie	1	102089
27	Mounting pin	Goupille de montage	2	102257
28	Adjusting rod	Tige d'ajustement	1	102653
29	Lift lever	Levier de relevage	1	103075
30	Pin	Goupille	2	103077
31	Roll pin 3/16" x 1"	Goupille roulée 3/16" x 1"	4	O/L
32	Hair pin 2.5mm	Goupille à ressort 2.5mm	2	102013
33	Hex. bolt 3/8" n.c. x 3/4"	Boulon hex. 3/8" n.c. x 3/4"	1	O/L
34	Handle support	Support de manivelle	1	102243
35	Plastic grommet	Oeillet de plastique	1	102063
36	Spring	Ressort	1	103073
37	V-Belt , B-120	Courroie en V , B-120	1	102048
38	Reflector (Pack of 2)	Réflecteur (Ensemble de 2)	1	106108

O/L = Obtain Locally

TORQUE SPECIFICATION TABLE

GENERAL TORQUE SPECIFICATION TABLE
USE THE FOLLOWING TORQUES WHEN SPECIAL TORQUES ARE NOT GIVEN

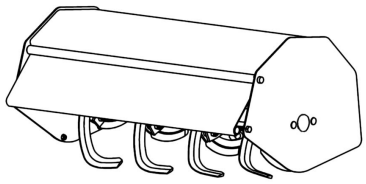
NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads.

*** Thick nuts must be used with grade 8 bolts**

SEE Grade No.		2				5				8 *			
BOLT HEAD IDENTIFICATION MARKS AS PER GRADE NOTE MANUFACTURING MARKS WILL VARY		TORQUE				TORQUE				TORQUE			
BOLT SIZE		FOOT POUNDS		NEWTON-METERS		FOOT POUNDS		NEWTON-METERS		FOOT POUNDS		NEWTON-METERS	
Inches	Millimetre	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4"	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16"	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8"	9.53	20	23	27.1	31.2	35	42	47.5	57	45	54	61	73.2
7/16"	11.11	30	35	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2"	12.7	45	52	61	70.5	80	96	108.5	130.2	110	132	149.2	179
9/16"	14.29	65	75	88.1	101.6	110	132	149.2	179	160	192	217	260.4
5/8"	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358
3/4"	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8"	22.23	160	200	216.8	271	400	480	542.4	650.9	600	720	813.6	976.3
1"	25.4	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5

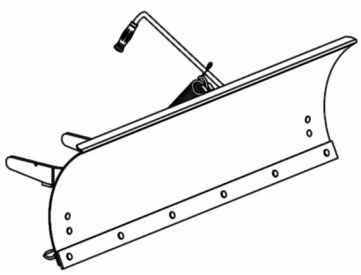
METRIC BOLT TORQUE SPECIFICATIONS							
		COARSE THREAD			FINE THREAD		
Size Screw	Grade No.	Pitch (mm)	Foot Pounds	Newton-Meters	Pitch (mm)	Foot Pounds	Newton-Meters
M6	4T	1.00	3.6 - 5.8	4.9 - 7.9	-	-	-
	7T		5.8 - 9.4	7.9 - 12.7		-	-
	8T		7.2 - 10	9.8 - 13.6		-	-
M8	4T	1.25	7.2 - 14	9.8 - 19	1.00	12 - 17	16.3 - 23
	7T		17 - 22	23 - 29.8		19 - 27	25.7 - 36.6
	8T		20 - 26	27.1 - 35.2		22 - 31	29.8 - 42
M10	4T	1.50	20 - 25	27.1 - 33.9	1.25	20 - 29	27.1 - 39.3
	7T		34 - 40	46.1 - 54.2		35 - 47	47.4 - 63.7
	8T		38 - 46	51.5 - 62.3		40 - 52	54.2 - 70.5
M12	4T	1.75	28 - 34	37.9 - 46.1	1.25	31 - 41	42 - 55.6
	7T		51 - 59	69.1 - 79.9		56 - 68	75.9 - 92.1
	8T		57 - 66	77.2 - 89.4		62 - 75	84 - 101.6
M14	4T	2.00	49 - 56	66.4 - 75.9	1.50	52 - 64	70.5 - 86.7
	7T		81 - 93	109.8 - 126		90 - 106	122 - 143.6
	8T		96 - 109	130.1 - 147.7		107 - 124	145 - 168
M16	4T	2.00	67 - 77	90.8 - 104.3	1.50	69 - 83	93.5 - 112.5
	7T		116 - 130	157.2 - 176.2		120 - 138	162.6 - 187
	8T		129 - 145	174.8 - 196.5		140 - 158	189.7 - 214.1
M18	4T	2.00	88 - 100	119.2 - 136	1.50	100 - 117	136 - 158.5
	7T		150 - 168	203.3 - 227.6		177 - 199	239.8 - 269.6
	8T		175 - 194	237.1 - 262.9		202 - 231	273.7 - 313
M20	4T	2.50	108 - 130	146.3 - 176.2	1.50	132 - 150	178.9 - 203.3
	7T		186 - 205	252 - 277.8		206 - 242	279.1 - 327.9
	8T		213 - 249	288.6 - 337.4		246 - 289	333.3 - 391.6

ATTACHMENTS



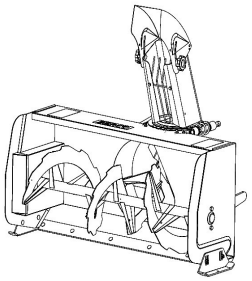
ROTARY TILLER #700312

Mounts to the rear of lawn & garden tractors 14 to 25 HP. Comes complete with drive & manual lift mechanisms & mounting hardware.



UTILITY BLADE #700266

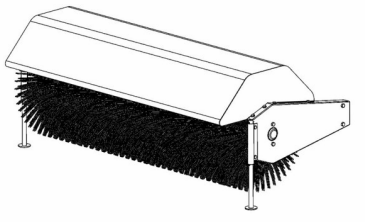
Mounts on the same subframe as the snowblower & rotary broom.



SNOWBLOWER

#700210 40"
#700211 44"

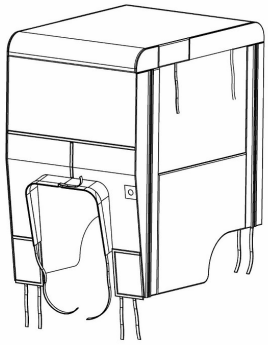
Fits on same subframe as rotary broom and utility blade.



ROTARY BROOM

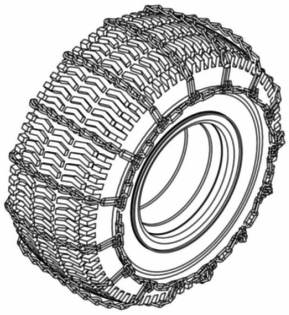
/#700316 with polypropylene brush.

Fits on same subframe as snowblower & utility blade.
Requires an adaptor.



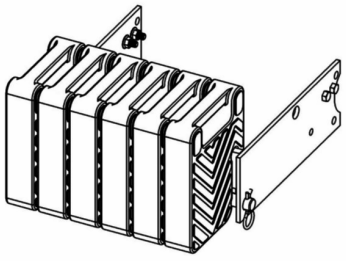
TRACTOR WINTER CAB
#700271 34''
#700423 40''

Universal type fits on a wide variety of lawn and garden tractors.



TIRE CHAINS

Two link spacing. Required for traction and safety.
Pkg. of 2



COUNTERWEIGHT

Model # according to tractor brand

Required for safety and traction. Counterbalances weight of attachment.

NOTES

WHEN PERFORMANCE & DEPENDABILITY ARE NON NEGOTIABLE !

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